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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,058	02/13/2004	Johnson Chiang	CHIA3063/EM	4109
23364	7590	02/07/2006	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			STERRETT, JEFFREY L	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

2K

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/777,058		CHIANG, JOHNSON	
	<b>Examiner</b>		<b>Art Unit</b>	
	Jeffrey L. Sterrett		2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2. Claims 1-5 are objected to because of the following informalities.

Claims 1-5 are vague and indefinite since in line 3 “the feedback signal” lacks proper antecedent basis. Claims 1-5 are also vague and indefinite since in line 7 “the driving voltage” lacks proper antecedent basis.

Claims 2 and 3 are improper since claim 1 sets forth that the driving voltage detecting device comprises two comparators and claims 2 and 3 set forth that the driving voltage detecting device comprises a single comparator. Claims may only add additional recitations and limitations and cannot subtract or replace a previously recited claim element or limitation.

Claim 5 is confusing since in line 3 “a reference signal” is set forth however it is unclear from the recitations whether this reference signal is the same or a different one from that already recited in line 3 of claim 1.

It is noted that all of the claims (and really the whole disclosure) are in stilted and awkward English. For example, in independent claim 1 each clause should begin with a non-capitalized letter and throughout claims 1-5 the proper terminology should be – load—not “loading”

Appropriate correction is required.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Lonergan (US 4,841,219).

Lonergan discloses a driving voltage detecting device comprising a current controlling circuit (16) connected with a load (not shown), a feedback controlling circuit (18-22) comparing a feedback signal with a reference signal (VREFA) to provide a control signal to the current controlling circuit, and a comparator (26) determining whether the control signal is too high.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Lonergan.

Lonergan teaches a driving voltage detecting device as explained above and as recited by claim 3 except for specifying that the comparator determines that the control signal is too low instead of too high. Official notice is taken that utilizing a comparator to determine whether a signal is too low and utilizing a comparator to determine whether a signal is too high were equally old and known expedients in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the driving voltage detecting device of Lonergan by utilizing

the comparator to determine whether the control signal is too low instead of too high in order to control under current instead of over current.

7. Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Lonergan.

Lonergan teaches a driving voltage detecting device as explained above and as recited by claim 5 except for specifying that the feedback is accomplished by a resistor in series with the load instead of in parallel to the load. Official notice is taken that utilizing a resistor in series with the load instead of in parallel to the load to provide feedback was an old and known expedient in the art at the time of the invention (as taught, for example, by any one of Wrzesinski (US 5,124,616), Carpenter (US 5,191,278), Krinsky et al (US 5,200,692), Nakajima (US 5,550,462), Amano (US 5,642,034), or Pulvirenti (US 5,804,956)). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the driving voltage detecting device of Lonergan by utilizing a resistor in series with the load instead of in parallel to the load to provide the feedback in order to directly sense the output current.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

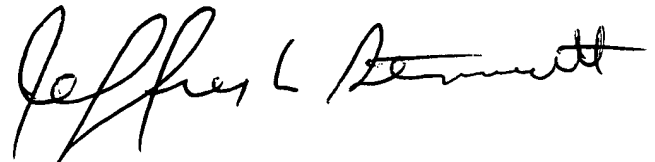
Tuozzolo et al (US 5,804,955) and Miyanga et al (US 6,897,638) are cited to show regulators old and known in the art at the time of the invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Sterrett whose telephone number is (571) 272-2085. The examiner can normally be reached on Monday-Thursday & 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on (571) 272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey L. Sterrett  
Primary Examiner  
Art Unit 2838

A handwritten signature in black ink, appearing to read "Jeffrey L. Sterrett", written in a cursive style.